

7/5/2007

REMARKS

[0001] Claims 1-4, 7, 11, 12, and 42-71 are pending. Claims 72-78 are new. The Office Action mailed April 11, 2007 (hereinafter "Office Action") objected to the drawings. The Office Action objected to Claims 7, 11, and 12 for depending on cancelled claims. The Office Action objected to Claims 55 and 63 as being of an improper dependent form for failing to further limit the subject matter of a previous claim. The Office Action rejected Claims 1-4, 42, and 46-58 under 35 U.S.C. § 103(a) as being unpatentable over Konopka, et al., U.S. Patent No. 5,850,250 [hereinafter "Konopka"] in view of Metcalf, U.S. Patent No. 6,669,346 [hereinafter "Metcalf"]. The Office Action rejected Claims 7, 11, and 12 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf, in further view of Slezak, U.S. Patent No. 6,647,119 [hereinafter "Slezak"]. The Office Action rejected Claims 43, 44, and 67-71 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf, in further view of Jenkins, et al., U.S. Patent No. 6,585,518 [hereinafter "Jenkins"]. The Office Action rejected Claim 45 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf, in further view of Meyn, et al., U.S. Patent No. 5,859,623 [hereinafter "Meyn"]. The Office Action rejected Claims 59-65 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf, in view of Jenkins and Meyn. The Office Action rejected Claim 66 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf, in further view of Jenkins and Meyn, and in further view of Slezak. A replacement specification with paragraph numbers is submitted.

AMENDMENTS TO THE SPECIFICATION

[0002] The specification has been replaced with a new specification with paragraph numbers. The new specification is identical to the specification submitted April 11, 2005 except that paragraph numbers have been added, two minor grammatical errors have been corrected, and the title page has been changed. The new specification finds full support in the previously submitted specification, claims, and drawings. A marked up version and a clean version are included.

AMENDMENTS TO THE DRAWINGS

[0003] Figures 1-7 have been formalized as directed by the Examiner. The amended drawings find full support in the specification and claims.

AMENDMENTS TO THE CLAIMS

[0004] The claims have been amended to more particularly point out the features of the present invention. The amendments are fully supported by the specification, drawings, and claims. In particular, the amendments to Claim 1 find support in paragraphs 34 and 44 of the replacement specification. New Claims 72 and 73 find support in paragraph 26. Claim 74 finds support in paragraphs 10 and 23. New Claim 75 finds support in paragraphs 25, 28-33, and 44. New Claim 76 finds support in paragraphs 28, 29, 32, and 35. New Claims 77 and 78 find support in paragraph 29-32, 35, and 44. The amendments and new claims may also find further support in the specification, claims, and drawings.

OBJECTION TO CLAIMS 7, 11, 12, 55, AND 63

[0005] The Office Action objected to Claims 7, 11, and 12 as depending from cancelled claims. Claims 7 and 12 have been amended to depend from Claim 1. The Office Action objected to Claims 55 and 63 as being of an improper dependent form for failing to further limit the subject matter of a previous claim. Claim 55 has been amended to depend from Claim 53 and Claim 63 has been amended to depend from Claim 61.

REJECTION OF CLAIMS 1-4, 7, 11, 12, AND 42-71 UNDER 35 U.S.C. §103(a)

[0006] The Office Action rejected Claims 1-4, 42, and 46-58 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf. The Applicants respectfully traverse this rejection. The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. MPEP at § 2142. The prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP at § 2142. In addition, even if all the claim limitations are taught or suggested by the prior art references, there must be some suggestion or motivation to combine reference teachings to establish obviousness. MPEP §2142. The

Applicants respectfully assert that Konopka and Metcalf combined fail to teach or disclose each element of the claimed invention as required under 35 U.S.C. § 103(a). The Applicants assert that there is no motivation, suggestion, or teaching in either Konopka or Metcalf to combine the references.

References are Non-Analogous Art

[0007] The Metcalf reference is non-analogous art and thus is not a valid reference to cite for a § 103 obviousness rejection. Determining that a cited reference is non-analogous requires a two-step process. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The first step is to determine if the reference is within the inventor's field of endeavor. *Id.* If so, then the reference is analogous. *Id.* If the reference is not within the inventor's field of endeavor, the second step is to determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *Id.*

[0008] The first question, whether the reference is in the inventor's field of endeavor, is narrow in scope. It is not sufficient that the reference and the claimed invention are both in the computer generated display art as demonstrated by *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993). The *Wang* decision is cited in great detail at MPEP 2141.01(a) –

ANALOGY IN THE ELECTRICAL ARTS:

Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers. Reference to a SIMM for an industrial controller was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were intended for personal computers and used dynamic random-access-memories, whereas reference SIMM was developed for use in large industrial machine controllers and only taught the use of static random-access-memories or read-only-memories, the finding that the reference was nonanalogous was supported by substantial evidence. MPEP 2141.01(a)

[0009] Thus, a reference to a memory module was found to not be in the field of endeavor for an invention relating to SIMMs for installation on a printed circuit motherboard.

The fact that the claimed inventions were for personal computers rather than industrial computers and for random access memory rather than static memory were sufficient distinctions to remove the claimed invention from the same field of endeavor as the cited reference.

[0010] With respect to the present invention, independent Claim 1 recites a method for displaying instructional information to students controlled by an operator on one or more visual displays and displaying background information selected by an auto-switching algorithm on the visual displays not displaying instructional information. This field of endeavor is distinct from the Metcalf reference which relates to a large-audience display for panoramic imagery featuring a circularity of action. The mere fact that both deal with computer displays is not sufficient to establish the same field of endeavor. This is supported by the MPEP's citation to *Wang* which teaches that two references that both relate to computer memory are not necessarily analogous simply because both references use the term "memory." MPEP 2141.02(a).

[0011] The second part of the two-part test for analogous art requires that the cited reference be reasonably pertinent to the particular problem with which the inventor was involved.

"A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). To answer this question, the purpose of the reference and the claimed invention are compared.

[0012] Metcalf explicitly states the problem faced and addressed by Metcalf et al is as follows:

Accordingly, there is a need for improved image, or multimedia, delivery and display systems to upgrade the visual impact of live, or pre-recorded, exhibitable *panoramic content*, and to provide practicable solutions that are commercially viable in engaging a greater number of viewers, or in engaging interactive participant-viewers. There is also a need for systems that are scalable and readily transportable not only for *small indoor venues* but for *large arenas*, or other *outdoor system variants*, such that the viewers can readily view, and/or interact with, such systems, and experience panoramic exhibitions that are substantially contiguous and *circumnavigably viewable*. Furthermore, there is a need for *panoramic image exhibition* system-particularly of live events--that offer

engaging dual-perspectives from numerous positions that are exterior to the outer perimeter of such systems whether viewed in close proximity, or viewed from a distance.

Metcalf col. 4, ll. 23-39.

[0013] The cited reference seeks to solve a problem related to displaying instructional information and background information to students. In contrast, the present Application, as recited in Claim 1 and in its specification, seeks to Super Teaching using three or more visual displays to attract and hold student's attention. Application at ¶¶ 4-8, 25, Figs 1A, 1B. The problems are completely different. The image pattern matching does not commend itself to the mind of an inventor trying to tokenize a text stream into groups of words or phrases. Under *Wang*, the fact that the two references examined both dealt with computer memory was not sufficient to find that the references were analogous art. Thus, Metcalf is not analogous art and is an improper 35 U.S.C. § 103(a) reference.

[0014] The Applicants also assert that Konopka is non-analogous art. While Konopka concerns itself with classroom learning and displays, the problem to be solved by Konopka does not relate to the claimed invention. Konopka states that the "present invention is directed to a video distance learning classroom system which facilitates virtual eye contact between a teacher in a teaching classroom and students in a (sic) one or more remote locations." Konopka at col. 3, ll. 25-28. The Applicants respectfully assert that Konopka fails the second test in the two-part test laid out in MPEP § 2141 for determining if a prior art reference is appropriate, analogous prior art. The Applicants respectfully assert that Konopka is not appropriate as a prior art reference.

[0015] The Applicants also assert that Slezak is also non-analogous art. Slezak explicitly states that the application "relates to generating audio signals to simulate sound sources that are stationary and moving proximate to a computer display. Slezak at col. 1, ll. 6-9. Slezak only peripherally deals with generating a computer display. The Applicants respectfully assert that Slezak does not pass the first test of a proper section 103 reference because it is not in the field of endeavor of the claimed invention in the present Application.

[0016] The Applicants also respectfully assert that Slezak also fails the second test because the problem to be solved by Slezak is different than the problem solved by the claimed invention. Slezak seeks to solve a problem of alerting a computer user of a message using a combined visual and audio cue that distracts the user by displaying visual cues on a screen and then a separate simulated audio sound cues that seem to be spaced-apart from each other about a computer user. *Id.* at col. 1, ll. 10-57. This problem is vastly different than the problem of maintaining student attention in a classroom that is addressed with the claimed invention. The Applicants respectfully assert that Slezak is non-analogous art and an inappropriate section 103 reference.

[0017] The Applicants also assert that Meyn is non-analogous art. While Meyn relates to computer generated displays, Meyn at col. 1, ll. 14-18, the problem to be solved by Meyn is extremely different than the problem to be solved by the present invention. Meyn states that “the principal object of the present invention is to provide a new and improved intelligent display system presentation projection arrangement and method of using it, wherein the arrangement does not require a separate computer for controlling a projector unit for generating a projected image.” Meyn at col. 1, ll. 52-57. Again, this problem to be solved by Meyn is vastly different than maintaining student attention in a classroom. The Applicants respectfully assert that Meyn does not pass the requirements for analogous art and is inappropriate as a section 103 reference.

CLAIMS 1-4, 42, AND 46-58

[0018] The Office Action rejected Claims 1-4, 42, and 46-58 under 35 U.S.C. § 103(a) as being unpatentable over Konopka in view of Metcalf. The Applicants respectfully assert that one of ordinary skill in the art would have no motivation to combine these references at the time of the invention to arrive at the inventions of the claims. Konopka relates to a system for providing distance learning in a classroom. Konopka at Abstract. Metcalf relates to generating a panoramic display for a large audience in a small performance venue or a large stadium. Metcalf at Abstract. The present invention relates to maintaining student attention by using three or more visual displays where one or more of the displays have instructional material and the other

displays include background images that are displayed and replaced by an auto-switching algorithm. The Applicants respectfully assert that one of skill in the art would have no motivation to first look to a non-analogous prior art reference relating to distance learning and then to a non-analogous prior art reference relating to panoramic displays to arrive at the inventions of the rejected claims.

Claims 1, 59, and 67

[0019] Claim 1 has been amended to more particularly point out the invention of the application. In particular, amended Claim 1 recites displaying instructional information controlled by an operator and background information controlled by an auto-switching algorithm. The instructional information is displayed on at least one of the three or more visual displays. The background images are displayed on one or more of the visual displays not displaying the instructional information. An auto-switching algorithm displays and replaces the background information and controls selection, sequence, and duration of the display of the background images. The Applicants respectfully assert that neither Konopka nor Metcalf disclose displaying instructional information controlled by an operator and background images controlled using an auto-switching algorithm as recited in amended Claim 1. Claims 59 and 67 have also been amended and the arguments in favor of Claim 1 are equally applicable to Claims 59 and 67.

Claims 72-79

[0020] Claim 72 recite that the auto-switching algorithm replaces displayed background images with varying patterns selected with table driven timeouts. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. Claim 73 recites that the table-driven timeouts preclude duplication of image pattern to a minimum frequency. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. Claim 74 recites that the auto-switching algorithm replaces displayed background images according to a random duration with random background images. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. Claim 75 recites that the auto-switching algorithm selects input sources for the background information supplying the background images. The

Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. Claim 76 recites that the computer implemented delivery system includes an operator override for the auto-switching algorithm for one or more visual displays. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation.

[0021] Claim 77 recites that the auto-switching algorithm changes display of the instructional material from one set of the one or more of the at least three visual displays to another set of one or more of the at least three visual displays and that the auto-switching algorithm moves the background images of the background information to one or more visual displays not displaying instructional information. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. Claim 78 recites that the operator changes display of the instructional material from one set of the one or more of the at least three visual displays to another set of one or more of the at least three visual displays and the auto-switching algorithm moves the background images to visual displays not displaying instructional information. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. Claim 79 recites that the at least three visual displays are together on one screen. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation. The Applicants respectfully assert that Claims 72-79 are allowable.

Claims 42 and 46-58

[0022] The Office Action states that Metcalf teaches displaying a random sequence of the visual images on the displays. Office Action at p. 5. While the Applicants disagree, Claim 42 has been amended to recite displaying a random sequence of the background images on each of the at least three visual displays after expiration of a timeout period. The Applicants respectfully assert that neither Konopka nor Metcalf disclose this limitation.

[0023] In addition, the Applicants respectfully assert that the citation in Metcalf regarding random images (col. 23, ll. 41-47) does not anticipate the limitations of Claim 42 because the citation is not enabling of the Claim 42 limitations and is taken out of context. Read in context, the citation in Metcalf states that random images are displayed only in response to audio events triggering an audio-event triggered switch. Metcalf at col. 42, ll. 32-58. One of skill in the art

would not make the leap between displaying random images on a panoramic display triggered by audio events and the limitations of Claim 42. The Applicants respectfully assert that Claim 42 is in condition for allowance.

[0024] With regard to Claim 50, the Office Action states that Konopka teaches displaying previous information provided by the teacher on each of the three visual displays. Office Action at p. 7. Amended Claim 1 recites that the visual displays are in a classroom. The citation in Konopka teaches sending an image to multiple classrooms, and as such, does not anticipate Claim 50 as it depends from amended Claim 1. The Applicants respectfully assert that Claim 50 is in condition for allowance.

[0025] With regard to Claim 52, the Office Action states that Konopka teaches displaying background pictures that are related to what is being taught and cites column 7, lines 43-46 of Konopka as evidence. Office Action at p. 7. Claim 52 is amended and, in conjunction with underlying Claim 1, makes clear that instructional material is displayed on one or more of the visual displays and background information related to the instructional information is displayed on one or more of the remaining displays. Konopka only teaches using one visual display in a classroom from an overhead camera to display instructional information. The other displays merely display students and the instructor. *See e.g.* Konopka at col. 3, ll. 34-60. The Applicants respectfully assert that Claim 52 is allowable.

[0026] With regard to Claim 53, the Office Action states that Konopka teaches displaying background pictures that are unrelated to what is being taught and cites column 4, lines 9-14 of Konopka as evidence. Office Action at p. 7. Claim 53 is amended and, in conjunction with underlying Claim 1, makes clear that instructional material is displayed on one or more of the visual displays and background information unrelated to the instructional information is displayed on one or more of the remaining displays. Konopka only teaches using one visual display in a classroom from an overhead camera to display instructional information. Konopka at col. 6, ll. 61 to col. 7, l. 3. The other displays merely display students and the instructor. *See e.g. id.* at col. 3, ll. 34-60. Konopka does not teach an auto-switching algorithm that controls the display and replacement of the background images where the auto-switching algorithm controls

selection, sequence, and duration of the background images. The Applicants respectfully assert that Claim 53 is allowable.

[0027] With regard to Claim 54, the Office Action states that Konopka teaches displaying students and teachers. Office Action at pp. 7-8. Claim 54 has been amended to remove students and teachers. The Office Action also states that the panoramic images of airplanes, battle, scenes, etc. would be unrelated background images reading on Claims 54 and 55 as well as Claim 56. *Id.* at p. 8. The Applicants disagree. Only through impermissible hindsight could someone make the leap between the panoramic images of Metcalf to background images displayed in a classroom along with instructional material. The Applicants respectfully assert that Claims 54-56 are allowable.

Claims 7, 11, 12, 43-45, 59-66, and 67-71

[0028] Claims 7, 11, 12, 43-45, 59-66, and 67-71 are rejected under 35 U.S.C. § 103(a) as unpatentable over Konopka in view of Metcalf and in further view of a various combinations of Slezak, Jenkins, and Meyn. The Applicants respectfully assert that one of skill in the art would have no motivation to combine so many non-analogous prior art references to arrive at the limitations recited in the Claims. The Applicants respectfully request that the rejection of Claims 7, 11, 12, 43-45, 59-66, and 67-71 be removed on this basis. In addition, the arguments in favor of Claims 52-56 are equally applicable to Claims 60-64 and the Applicants respectfully assert that Claims 60-54 are allowable.

[0029] The Applicants respectfully assert that Claim 1 is in condition for allowance. Similarly, the Applicants assert that the arguments in favor of Claim 1 are equally applicable to Claims 59 and 67 and are in condition for allowance. Claims 2-4, 7, 11, 12, 42-58, 60-67, and 68-78 depend on Claims 1, 59, and 67. Because the invention of Claims 1, 59, and 67 are not obvious in relation to Konopka and Metcalf, the Applicants respectfully assert that Claims 2-4, 7, 11, 12, 42-58, 60-67, and 68-78 are similarly in condition for allowance because they depend from allowable claims. *See in re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

[0030] Should additional information be required, the Examiner is respectfully asked to notify the Applicants of such need. If any impediments to the prompt allowance of the claims

can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

/Bruce R. Needham/

Bruce R. Needham
Reg. No. 56,421
Attorney for Applicants

Date: July 5, 2007
8 East Broadway, Suite 600
Salt Lake City, UT 84111
Telephone (801) 994-4646
Fax (801) 531-1929



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09/981,287	10/18/2001	Bernhard Dohrmann	59575-014	6542
36491 7590 04/11/2007 KUNZLER & ASSOCIATES 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			EXAMINER GISHNOCK, NIKOLAI A	
			ART UNIT 3714	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/981,287	Applicant(s) DOHRMANN, BERNHARD	
	Examiner Nikolai A. Gishnock	Art Unit 3714	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 11, 12 and 42-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 11, 12 and 42-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to Applicant's remarks submitted 7/17/2006, claims 5, 6, 8-10, & 13-41 are cancelled; claims 1-4, 7, 11, 12, & 42-71 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/17/2006 has been entered.

Drawings

2. The drawings are objected to because the lines, numbers, and letters are not uniformly thick, and well-defined, clean, durable, and black, or otherwise have poor line quality in Figures 1A, 1B, & 2-5. Solid black shading is not permitted in Figures 1A & 1B. Erasures, alterations, overwritings, interlineations, folds, and copy machine marks are not accepted in Figures 1-5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required. The objection to the drawing will not be held in abeyance.

Claim Objections

3. Claims 7, 11, & 12 are objected to because of the following informalities: Claims 7 & 12 depend from cancelled claim 6; claim 11 depends from claim 7. Claims 7 & 12 will be treated as dependent from claim 1. Appropriate correction is required.

4. Claims 55 & 63 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. A Markush claim depending from another Markush claim broadens the selection group and does not establish a closed list. Claim 55 will be treated as part of the Markush group of claim 54, and claims 63 will be treated as part of the Markush group of claim 62. The Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 3714

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-4, 42, & 46-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka et al. (US 5,850,250), hereinafter known as Konopka, in view of Metcalf (US 6,669,346), hereinafter known as Metcalf.

- Konopka teaches a computer-implemented delivery system for instructional information (workstation includes a personal computer to schedule classes, Column 8, Lines 40-42) comprising: at least one source that provides data (front video cabinet with document camera, Column 6, Lines 61-67); at least one user interface that receives from a user input related to the data (control panel to control all devices located in the room, Column 8, Lines 45-48); a plurality of output devices that receives audio and video components of the instructional information, including at least three visual displays (front audio/video cabinet includes three video monitors, Column 6, Lines 45-50 and Figure 3, Items 201-204); a processor that generates audio and visual components of instructional information from provided data to at least one output device (CPU module for controlling audio/video functions, Column 8, Lines 46-48); and communication links that transmit data and information between the source, the user interface, the processor, and the output devices (personal computer can be linked to the network and audio/video components in the classroom for presentations, Column 8, Lines 42-45). What Konopka fails to teach is a computer-readable medium

accessible by the processor, including a predetermined rule comprising instructions for displaying continuous random sequence of background visual images on the three visual displays [Claims 1 & 42]. However, Metcalf teaches predetermined conditions in order to effect a change in the image output, and a computer interface to select images from a database of images (Column 23, Lines 18-26), which can switch a random sequence of images to a multiple-screen display system (Column 23, Lines 41-47). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have implemented the computer readable media containing instructions for sequencing random images to the display of Metcalf, in the computer implemented instructional delivery system of Konopka, for the purpose of switching images contiguously with an image modulating means, such as an audio trigger [Claims 1 & 42].

- Konopka teaches sources providing data consisting of a videocassette recorder (VCR, Column 4, Lines 24-27), cameras (Column 3, Lines 48-52), audio tuners (microphone mixers, Column 9, Lines 37-41), the Internet (data applications transmitted over T1 lines, Column 11, Lines 22-23), and PC-based presentations (Column 8, Lines 42-45) [Claim 2].
- Konopka teaches a predetermined rule determining order and sequence in which data from each source is applied to the output devices (In a normal operating mode one of the video monitors will display the teacher, while the other monitors will display classroom images, Column 4, Lines 9-14) [Claim 3].

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- Konopka teaches wherein said user input determines which source provides data (video image received by the document camera may be selectively displayed on the first video monitor, Column 7, Lines 43-46) [Claim 4].
- Konopka teaches a predetermined rule including displaying a student image on the display system on each of the three visual displays (three monitors display video images of three remote classrooms), and a predetermined rule including displaying a teacher image on the display system on each of the three visual displays (one of the video monitors will display a video image of the teacher, Column 4, Lines 9-14) [Claims 46 & 47].
- Konopka teaches a predetermined rule including displaying a visual data piece repetitively on the display system on each of the three visual displays (teacher is able to switch between a rear camera focused on the teacher and the document camera to control the display of the first video monitor, Column 7, lines 50-53) [Claim 48].
- Konopka teaches all the features as demonstrated in the rejection of claim 1 above. What Konopka fails to teach is wherein at least one predetermined rule includes displaying background pictures during idle or transition periods on the display system on each of the three visual displays. However, Metcalf teaches contiguous panoramic visual-media content (Column 1, Lines 24-32). Metcalf inherently shows this content during idle or transition periods, as the content is contiguous in time as well. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to display the

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background images of Metcalf during the idle or transition times in the instructional delivery device of Konopka, in order for the students to achieve a sense of immersion in the instructional content [Claim 49].

- Konopka teaches a predetermined rule including displaying previous information provided by the teacher to reinforce the previous information on each of the three visual displays (video image received by the document camera may be selectively displayed on the first video monitor, Column 7, lines 43-46) [Claim 50].
- Konopka teaches a predetermined rule including displaying new information provided when the teacher overrides the control system on the display system on each of the three visual displays (teacher's workstation includes a control panel wired to a CPU module for controlling audio/video functions, Column 8, Lines 45-48) [Claim 51].
- Konopka teaches a predetermined rule for displaying background pictures that are related to what is being taught (video image received by the document camera may be selectively displayed on the first video monitor, Column 7, Lines 43-46) [Claim 52].
- Konopka teaches a predetermined rule for displaying background pictures that are unrelated to what is being taught (three monitors display video images of three remote classrooms, Column 4, Lines 9-14) [Claim 53].
- Konopka teaches all the features as demonstrated in the rejection of claims 1, 52, & 53 above. What Konopka fails to explicitly teach is the material on the

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document camera being selected from the presented list. However, Metcalf teaches wherein the unrelated background pictures are students and teachers (Column 4, Lines 9-14), and wherein the related background pictures are historical related items, futuristic related items, science fiction related items, and fiction related items (battles between turn of the century biplanes, gladiators, knights, or dinosaurs, Column 9, Lines 33-47). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included the panoramas of Metcalf in the instructional delivery system of Konopka, in order to provide action for holding the interest of viewers [Claims 54-56].

- Konopka teaches wherein the three visual displays are viewable on a single display screen (first video monitor displays either a video image of the teacher or instructional material and is larger than the other monitors, Column 6, Lines 33-44) [Claim 57].
- Konopka teaches wherein the three visual displays are viewable on three distinct display screens (three video monitors, each for displaying a video image of students, Column 6, Lines 46-50) [Claim 58].

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8. Claims 7, 11, & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka, in view of Metcalf, as applied to claim 1 above, and further in view of Slezak (US 6,647,119), hereinafter known as Slezak.

- Konopka and Metcalf teach all the features of claim 1 as demonstrated in the above rejection. What Konopka and Metcalf fail to expressly teach is wherein each of the three display screens is divided into a plurality of viewing areas in a predetermined pattern [Claim 7], or two or more unequal viewing areas [Claim 11], or a plurality of viewing areas in a pattern different from the other screens [Claim 12]. However, Slezak teaches a presentation device that displays some or all of the participants in isolated quadrants of the screen display (Column 6, Lines 48-55) [Claim 7]. Slezak teaches information being of an length that would be adjusted by scroll bars, in which it is inherently unequal to the length of the screen (Column 7, Lines 22-29) [Claim 11]. Slezak also teaches the use of MICROSOFT WINDOWS NT or WINDOWS 95 visual interface, in which a plurality of adjustable windows may be customized on different user's screens (Column 8, Lines 54-57) [Claim 12]. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have adapted the plurality of unequal viewing areas on different screens in a predetermined pattern, as taught by Slezak, into the instructional delivery device of Konopka and Metcalf, in order to display separate visual cues relevant to one another to a student on a monitor [Claims 7, 11, & 12].

9. Claims 43, 44, & 67-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka, in view of Metcalf, as applied to claim 1 above, and further in view of Jenkins et al. (US 6,585,518), hereinafter known as Jenkins.

- Konopka and Metcalf teach all the features of Claim 1, as shown above.

Konopka also teaches wherein a source that provides data includes an image capture device, displaying images captured on the three visual displays (video image received by the document camera may be selectively displayed video monitors, Column 7, Lines 43-46) [Claim 67]. What Konopka and Metcalf fail to teach is at least one predetermined rule for displaying random switching time between the visual images and random display duration of the visual data being displayed on each of the three visual displays [Claims 43, 44, & 67]. However, Jenkins teaches a computer-assisted training system with reinforcement implemented by displaying randomly appearing animations (Column 3, Lines 19-55). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have incorporated the random switching time and random duration for displaying images, as described by Jenkins, in the information delivery device of Konopka and Metcalf, in order to motivate the user to learning by rewarding the user with an unexpected animation [Claims 43, 44, & 67].

- Konopka teaches wherein the user interface includes a screen and an input device (workstation includes a personal computer and control panel to control all devices located in the room, Abstract and Column 8, Lines 42-50) [Claim 68].

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- Konopka teaches wherein the data source includes a microphone (student microphones, Column 9, Lines 33-34) [Claim 69].
- Konopka teaches wherein the computer-readable medium includes instructions for enabling a user to enter a direction-regarding image display through the user interface and instructions for carrying out such direction (remote controller, such as a joystick, for controlling the pan, tilt, and zoom system, for aiming and focusing a camera, Column 4, Lines 30-41) [Claim 70].
- Konopka, Metcalf, and Jenkins teach all the features as demonstrated in the rejection of claim 67 above. What Metcalf and Jenkins fail to teach is wherein the computer-readable medium further includes instructions for applying special effects to images. However, Metcalf teaches image modulation techniques (Column 23, Lines 50-58) Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have incorporated the image changes as described in Metcalf, in the instructional delivery apparatus of Konopka, in light of the teachings of Jenkins, in order to maintain the interest of a student by synchronizing special effect image modulations with monitorable audio cues [Claim 71].

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10. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka, in view of Metcalf, as applied to claim 1 above, and further in view of Meyn et al. (US 5,859,623), hereinafter known as Meyn.

- Konopka and Metcalf teach all the features of Claim 1, as shown above. What Konopka and Metcalf fail to teach is at least one predetermined rule for displaying random special effect transitions of the visual data being displayed on each of the three visual displays. However, Meyn teaches an intelligent display system which incorporates random effect slide transitions (Column 17, Lines 34-37). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have incorporated the random image transitions of Meyn, in the information delivery device of Konopka and Metcalf, in order to maintain interest by unpredictably and artistically determining how an image appears on the screen [Claim 45].

11. Claims 59-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka in view of Metcalf, as applied to claim 1 above, and further in view of Jenkins and Meyn.

- Konopka teaches a computer-implemented delivery system for instructional information on three visual displays, used when an instructor is instructing a student, with all of the features as demonstrated in the rejection of claim 1 above. Metcalf teaches displaying continuous random background visual images with random sequencing, as demonstrated in the rejection of claim 1. Jenkins teaches

displaying random switching time and random displaying duration of the visual images being displayed, as demonstrated in the rejection of claims 43 & 44 above. In addition, Meyn teaches displaying random special effect transitions of the visual images being displayed, as demonstrated in the rejection of claim 45 above. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have implemented the random sequencing, random switching time, random duration, and random transitions of random images, of Metcalf, Jenkins, and Meyn in the instructional delivery apparatus of Konopka, in order to avoid a possible loss of interest in the instruction by the viewer [Claim 59].

- Konopka teaches a predetermined rule for displaying background pictures that are related to what is being taught (video image received by the document camera may be selectively displayed on the first video monitor, Column 7, Lines 43-46) [Claim 60].
- Konopka teaches a predetermined rule for displaying background pictures that are unrelated to what is being taught (three monitors display video images of three remote classrooms, Column 4, Lines 9-14) [Claim 61].
- Konopka, Metcalf, Jenkins, and Meyn teach all the features as demonstrated in the rejection of claims 59-61 above. What Konopka fails to explicitly teach is the material on the document camera being selected from the presented list. However, Metcalf teaches wherein the unrelated background pictures are students and teachers (Column 4, Lines 9-14), and wherein the related

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background pictures are historical related items, futuristic related items, science fiction related items, and fiction related items (battles between turn of the century biplanes, gladiators, knights, or dinosaurs, Column 9, Lines 33-47). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have included the panoramas of Metcalf in the instructional delivery system of Konopka, in light of the teachings of Jenkins and Meyn, in order to provide action for holding the interest of viewers [Claims 62-64].

- Konopka teaches providing an override module configured to allow a speaker to temporarily override the automatic display of the background image and display material selected by the speaker (teacher is able to switch between a rear camera and the document camera to control the display of the first video monitor, Column 7, Lines 50-53) [Claim 65].

12. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka in view of Metcalf, and further in view of Jenkins and Meyn, as applied to claim 59 above, and further in view of Slezak.

- Konopka, Metcalf, Jenkins, and Meyn teach all the features as demonstrated in the rejection of claim 59 above. Konopka also teaches wherein the three visual displays are a single display screen (three video monitors, each for displaying a video image of students, Column 6, Lines 46-50). What Konopka, Metcalf, Jenkins, and Meyn fail to teach is wherein the single screen is configured to incorporate at least three separate visual displays thereon. However, Slezak

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teaches a presentation device that displays some or all of the participants in isolated quadrants of the screen display (Column 6, Lines 48-55). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have adapted the plurality viewing areas on a single display screen, as taught by Slezak, into the instructional delivery device of Konopka and Metcalf, in light of the teachings of Jenkins and Meyn, in order to display separate visual cues relevant to one another to a student on a monitor [Claim 66].

Response to Arguments

13. Applicant's arguments, filed 7/17/2006, see pages 14-15, with respect to claims 1-4, 7, 11-12, 42-67 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is 571-272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on 571-272-6998. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

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2/28/2007

Kathleen Mosser
KATHLEEN MOSSE
PRIMARY EXAMINER

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